

537, 354

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/064816 A1

(51) International Patent Classification⁷: **A61K 9/58**,
C08G 63/08

(21) International Application Number:
PCT/US2003/035985

(22) International Filing Date: 3 December 2003 (03.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/440,355 16 January 2003 (16.01.2003) US

(71) Applicant (*for all designated States except US*): **CORNELL RESEARCH FOUNDATION, INC.** [US/US]; 20
Thornwood Drive., Suite 105, Ithaca, NY 14850 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **CHU, CHIH-CHANG** [US/US]; 14 Laura lane, Ithaca, NY 14850-9874
(US). **ZHANG, Xian-Zheng** [US/US]; 412 Winston
Court, Apt.2, Ithaca, NY 14850 (US).

(74) Agent: **SPECTOR, Eric, S. BACON & THOMAS, PLLC**; 625, Slaters Lane, Fourth Floor, Alexandria, VA
22314-1176 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PARTIALLY BIODEGRADABLE TEMPERATURE AND pH SENSITIVE HYDROGEL

(57) Abstract: Partially biodegradable hydrogel that changes its volume and shape in response to change in pH and/or temperature is prepared by UV irradiation of composition comprising dextran-maleic acid monoester and N-isopropylacrylamide.



WO 2004/064816 A1